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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

NGUYEN, MADELEINE ANH VINH

ART UNIT PAPER NUMBER

2626

DATE MAILED: 05/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/686,078

Applicant(s)

NAKAJIMA ET AL.

Examiner

Madeleine AV Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1 recites the limitation "said table" in lines 16-17, "at least two said tables" in line 23, "one said table" in line 25. There are insufficient antecedent basis for these limitations in the claim.
3. Claim 4 recites the limitation "said area" in lines 7-8, "the pixel data" in line 16, "said pixel data" in line 20, "the second area application-instructed by said conversion switching means" in line 31-32. There are insufficient antecedent basis for these limitations in the claim.
4. Claim 5 recites the limitation "said first area" in line 2 "said cells located adjacent to each other" in lines 3-4. There is insufficient antecedent basis for this limitation in the claim.
5. Claim 6 recites the limitation "the pixel unit management table" in lines 2-3, "the respective pixel data" in lines 3-4. There are insufficient antecedent basis for these limitations in the claim.
6. Claim 8 recites the limitation "said cell" in line 8, "said respective cells" in lines 10-11, "said pixel data" in line 18, "said respective pixel data" in line 21, "cell application-instructed by said conversion switching means" in lines 30-31, "the determined table" in line 37, "the entry corresponding to said cell" in line 48, "the entry corresponding to said pixel data" in lines 52-53. There are insufficient antecedent basis for these limitations in the claim.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-4, 6-7, 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cecchi et al (US Patent No. 6,532,081).

Concerning claim 1, Cecchi et al discloses an image converting apparatus (Fig.1) for converting document data constituted by containing plural sorts of draw objects (graphical images) into image data constituted by a plurality of pixel data comprising first conversion means (workstation) for converting the document data into first image data (image shown in monitor 20 with scanned image and graphics); second conversion means (processor 38) for converting the first image data into second image data (image data ready for printing at printer 12); and a plurality of tables (pictorial LUT 32, graphical LUT 34, blended LUT 39) provided in correspondence with at least one of plural sorts of draw objects and containing information to which the image converting apparatus refers when the first image data acquired by converting the sort of draw object corresponding thereto is converted into the second image data; wherein the second conversion means, as to each of areas obtained by subdividing the first image data by plural number, for converting the first image data of the area into second image data while referring to one of pictorial LUT 32 or graphical LUT 34; and the second conversion means, for converting pixel data into second image data while referring to the blended LUT 39; conversion switching means for applying the second conversion means to such an area wherein at least

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pictorial LUT 32 and graphical LUT 34 are combined into blended LUT 39 and are corresponded to sorts of draw objects contained therein, and for applying the second conversion means to such an area wherein graphical LUT 34 is corresponded to a sort of a draw object therein or pictorial LUT 32 is corresponded to such an area containing no draw object (pictorial image only), (Figs.1-2; Abstract; col. 3, line 41 – col. 4, line 52; col. 5, line 43 – col. 7, line 41).

Cecchi et al does not teach that the second conversion means include area unit conversion means and pixel unit conversion means. However, Cecchi et al teach that the second conversion means has two different operations equivalent to the operation of the area unit conversion means and the pixel unit conversion means. For instance, Cecchi teaches that the second conversion has an operation of converting the first image data by using a graphical LUT 34 when the first image is classified as draw data and for converting the first image data using a pictorial LUT 32 when the first image is classified as image data (pictorial image) which is equivalent to the operation of the area unit conversion means. Cecchi further teaches another operation of the second conversion means which converts each of pixel data containing both the draw object and image data by combining the LUT 32 and LUT 34 to blended LUT 39. That is equivalent to the operation of the pixel unit conversion means. It would have been obvious to one skilled in the art at the time the invention was made to consider the second conversion means includes the area unit conversion means and the pixel unit conversion means since Cecchi et al teaches that the second conversion means has two operations that are equivalent to the area unit conversion means and the pixel unit conversion means.

Concerning claim 2, Cecchi et al discloses an image converting apparatus as discussed in claim 1 above. Cecchi further teaches that the plurality of tables comprises a first table

(graphical LUT 34) for converting the draw data and a second table (pictorial LUT 32) for converting the image data (Fig.1).

Concerning claims 3, Cecchi further teaches that in case the first image data does not contain graphical image but text, it is converted to a second predetermined image data (characters) without reference to the graphical LUT 32 and the pictorial LUT 34 (col. 3, lines 48-55).

Concerning claim 4, Cecchi further teaches a first judging means (workstation 10) judges a draw object contained in area of the document; second judging means (weight generator 38) for judging as to whether or not both draw data and image data are contained the areas having draw object; third judging means (processor 36) judges the draw object indicated by pixel data contained in the areas having both draw data and image data; wherein the conversion switching means uses one of the pictorial LUT 32 or graphical LUT 34 for the areas not having both draw data and image data, and uses both the pictorial LUT 32 and graphical LUT 34 for a blended LUT 39 for the pixel data in the areas having both draw data and image data (col. 5, line 1 – col. 7, line 41).

Concerning claims 6-7, Cecchi further teaches that the third judging means describes the judgment results of the draw objects indicated by the pixel data corresponding to the input points; the first image data is RGB image data (displayed on the monitor 20), the second image data is CMYK image data (for printing at printer12); the first and second tables correspond to such tables on which color correction information is described when the RGB image data is converted into the CMYK image data (col. 3, line 48 – col. 4, line 42).

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Concerning claim 9, Cecchi et al discloses a print control apparatus (Fig.1) for controlling a printer comprising an image converting apparatus recited in claim 2 wherein the print control apparatus controls printing operation of the printer 12 in response to the image data produced by the converting apparatus.

Concerning claims 10, 11, Cecchi et al teaches a storage medium for storing a program product used to convert document data as discussed in claim 1 above wherein both first and second conversion means are constituted on a computer.

Claim 12 is method claim of apparatus claim 1. Claim 12 is rejected for the same rationales as set forth for claim 1.

Allowable Subject Matter

9. The following is an Examiner's statement of reasons for the indication of allowable subject matter:

Claims 5, 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an Examiner's Statement of Reasons for Allowance: Claims 5, 8 are objected over the prior art of record because the Examiner found neither prior art cited in its entirety, nor based on the prior art, found any motivation to combine any of the said prior art which teaches an image converting apparatus as claimed in claim 2 wherein each of the first areas is a cell, each of the second areas is constituted by plural number of cells located adjacent to each other, and while using a cell unit management table which is constituted by a plurality of

entries corresponding to the cells, the first judging means describes into each of entries of the cell unit management table the judgment results of the draw objects contained in the cells corresponding to the entries and the second judging means checking the judgment results of the draw objects described in the respective entries corresponding to the plural number of cells contained in the second area.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Maltz et al (US Patent No. 5,734,802) discloses an apparatus having pictorial, graphical and blended LUTs.

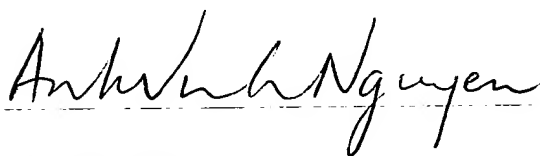
b. Jacob et al (US Patent No. 6,690,489) teaches a color conversion acceleration using lookup tables.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Madeleine AV Nguyen whose telephone number is 703 305-4860. The examiner can normally be reached on 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly A Williams can be reached on 703 305-4863. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Madeleine AV Nguyen
Primary Examiner
Art Unit 2626

April 29, 2004